

U.S. Serial No. 10/694,609
Response to Office Action
Mailed November 20, 2006

Page 8 of 11

RECEIVED
CENTRAL FAX CENTER

FEB 20 2007

REMARKS

Applicant has had an opportunity to review the Office Action mailed November 20, 2006, along with the prior art documents, both cited and applied by the Examiner. In response, selected claims have been amended to define over any fair teaching attributable to the references. The claim amendments should be considered in conjunction with the arguments in support of patentability provided below. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Applicant appreciates the indication that the prior art submitted in the Information Disclosure Statement was considered by the examiner as evidenced by return receipt of the initialed copy of PTO-1449.

Applicant also appreciates the indication that the drawings filed on April 18, 2005 are accepted.

The objection to claims 17-20 are also noted. Selected sub-paragraphs of claims 17-20 have been revised as suggested by the Examiner. Further, additional sub-paragraphs of these claims have also been revised for the same reasons.

Claims 6-11 and 20 are rejected as being indefinite under 35 U.S.C. 112, second paragraph. The Examiner indicates that it is unclear what is meant by a "fundamental single sinusoidal." A sine wave has a cycle with one peak and valley, so that the sinusoidal period is time for one cycle to occur. The period is one degree and it is not time based, i.e., temporal based, but is a spatial frequency. As evident from the drawings and the present application, a stroke is one-half cycle or one half of the period. Thus, the black parts are the strokes in an ANSI standard. This is evident in Figure 4 in the bulls-eye arrangement of the rotationally symmetric target, as well as the embodiment of Figure 5 which is a fundamental sinusoidal letter target, where the peaks of the sine wave are illustrated at reference numerals 8 and 6, and result in the darkened centerpoints and lighter edges where the sine wave goes through the lower portions of the curve. It is respectfully submitted that one skilled in the art understands

U.S. Serial No. 10/694,609
Response to Office Action
Mailed November 20, 2006

Page 9 of 11

what is meant by a fundamental single sinusoidal period. Accordingly, the rejection under section 112 is respectfully traversed.

With regard to the claim rejections, claims 1-3 and 12-16 stand rejected as being anticipated by Andera, et al. – U.S. Patent No. 5,216,458 (“Andera”). Andera shows, in Figures 3 and 5, linear grating patches of the type that are already known in the art. Applicant directs the Examiner’s attention to the Background of the present application, which describes targets of this general type in which the gratings have successive parallel aligned light and dark areas in which the light and dark areas have a substantially linear character. Andera uses these linear sinusoidal gratings in a manner such that each film 14a is rotated as successive targets 14a, 14b, 14c, 14d, 14e proceed in a circumferential direction and are rotated within the orbits provided by the motorized apparatus 10. This is contrasted with the teachings of the present application where separate targets are each at a predefined orientation (Figure 2, which shows a Four Choice Test embodiment). The targets are oriented forty-five degrees apart, i.e., the left-most target is at 9 and 3 o’clock, the next right-most target is at 11:30-4:30, the center-right target is at 12 and 6, and the right hand target at 1:30-7:30. Thus, even though Andera has multiple targets, they are linear gratings, as opposed to the sinusoidal gratings of the present application, and the linear gratings are continuously rotated through operation of the apparatus, while the present application teaches four distinct targets. Thus, claim 1 and claims dependent therefrom define over Andera, whether taken alone or in combination with any of the remaining art of record. Likewise, claims 12-16 now define over Andera for these same reasons.

Claims 2 and 13 are more particularly directed to the embodiment of Figure 2 of the present application, while dependent claims 3 and 14 are related to the six target test of Figure 3.

Claims 4, 5, and 17-19 are rejected under 35 U.S.C. 103 as being unpatentable over Andera as modified by Katsumi, et al. – U.S. Patent No. 5,054,908 (“Katsumi”) and Sarver – U.S. Patent No. 6,926,408 (“Sarver”). The Examiner concluded that Andera did not disclose that “the targets are sinusoidal bull’s-eyes varying in a radial sinusoidal fashion.” For the concept of a bulls-eye target, the

U.S. Serial No. 10/694,609
Response to Office Action
Mailed November 20, 2006

Page 10 of 11

Examiner references Katsumi and with regard to a sinusoidal target the Examiner relies on Sarver. Such a piecemeal, hindsight selection of disparate teachings is respectfully traversed. Clearly, the only reason to combine these teachings is an attempt to meet the claim limitations of the present application. Even then, these claims now define over the prior art. More specifically, the target of Figure 4 is rotationally symmetric, i.e., the intensity of the light and dark regions is constant over the circumference thereof. Clear antecedent support for this language is provided by Figure 4 and naturally results from the creation of the rotationally symmetric sinusoidal bull's eye target as described in the specification, i.e. "formed by a cross-section sinusoid that is pivoted around either the peak or valley of the sinusoid" (page 11, lines 13-14). This is distinct from Sarver, which provides for both radial and circumferential sinusoidal variation. A simple comparison of Figure 5 of Sarver with Figure 4 of the present application further exemplifies this difference. Andera does not teach or suggest a bulls-eye arrangement, much less a sinusoidal arrangement that is rotationally symmetric. Adding Katsumi to the teaching is no more than repetitive, since Figure 9 is directed to a lineal pattern (column 8, lines 33-41).

With regard to claims 6-11 and 20, the Examiner rejects these claims as being unpatentable over the combination of Andera as modified by Katsumi. These rejections are respectfully traversed. The Examiner relies on the Background, and the reference to "letters patent" at col. 1, lines 46-56 is not an indication that different letters are known to be used in the art for testing visual acuity, rather "letters Patent" is a reference to the formal issued U.S. Patent, i.e., Letters Patent. Thus, neither Andera nor Katsumi provide any indication of an optotype constructed from a plurality of strokes, such as in claim 6, and particularly as in claims 7 and 10 where the optotype is a letter (Figure 5). Thus, the amendments to claims 6 and 9 clearly define over any fair teaching of these documents.

Applicant further objects to the Examiner's conclusory statements in Paragraphs 20-22 on page 6 of the Office Action. Such conclusions regarding obviousness are not established by the art relied on by the Examiner, but rather through a hindsight application of applicant's own disclosure.

U.S. Serial No. 10/694,609
Response to Office Action
Mailed November 20, 2006

Page 11 of 11

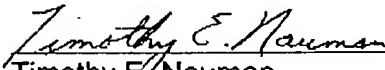
New claims 21 and 22 each depend from claim 4. Support for these limitations is provided at page 11, lines 14-15 of the present application. These new claims merely provide a more complete scope of protection for the disclosure.

All formal and informal matters having been addressed, this application is in condition for allowance. Early notice to that effect is solicited.

Respectfully submitted,

FAY SHARPE LLP

Date: 20 February 2007



Timothy E. Nauman
Reg. No. 32,283
1100 Superior Avenue, 7th Floor
Cleveland, OH 44114-2518
216/861-5582